

U.S.S.N 09/815,978
Schwartz
PRELIMINARY AMENDMENT

IN THE CLAIMS:

Please replace claims 12, 23, 24, 35, 37, and 49-53 with the following amended claims (a marked up copy of the amended claims is attached to this Amendment):

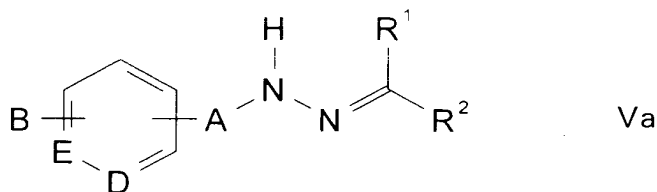
17 12. (Amended) The compound of claim 10, wherein R is a divalent aliphatic group.

11 23. (Amended) The compound of claim 1, wherein B is an amino reactive moiety selected from succinimidyl ester, hydroxybenzotriazolyl ester, or pentafluorophenol ester.

24. (Amended) The compound of claim 1, wherein B is a thiol reactive moiety selected from maleimido, α -bromoacetyl, α -bromoacetamido or pyridyldisulfide.

11 35. (Amended) A method of crosslinking a natural or synthetic biological molecule, comprising:

(i) preparing a conjugate of formula Va:



or a derivative thereof, wherein:

A is NH(C=O), NH(C=S), NH(C=NH), NNNH(C=O), NNNH(C=S), NNNH(C=NH) or a direct bond;

B is a natural or synthetic biological molecule;

D is a carbon or nitrogen atom;

E is a carbon or nitrogen atom;

R¹ is hydrogen or a saturated straight chain of 1 to 12 carbon atoms; and

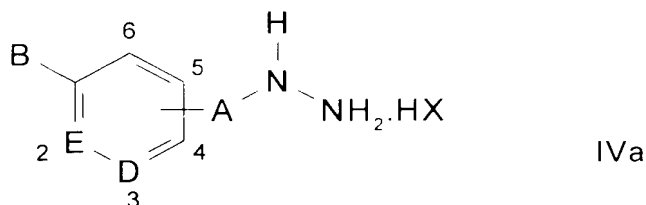
R² is hydrogen or a saturated straight chain of 1 to 12 carbon atoms; and

(ii) applying the conjugate to a surface wherein the surface has at least one carbonyl moiety for a time and under conditions such that the

hydrazine moiety of the conjugate reacts with the carbonyl moiety of the surface forming a hydrazone bond to the surface.

37. (Amended) A method of crosslinking a natural or synthetic biological molecule, comprising:

(i) preparing a conjugate of formula IVa:



or a derivative thereof, wherein:

A is $\text{NH}(\text{C}=\text{O})$, $\text{NH}(\text{C}=\text{S})$, $\text{NH}(\text{C}=\text{NH})$, $\text{NHNH}(\text{C}=\text{O})$, $\text{NHNH}(\text{C}=\text{S})$, $\text{NHNH}(\text{C}=\text{NH})$ or a direct bond;

B is a natural or synthetic biological molecule;

D is a carbon or nitrogen atom;

E is a carbon or nitrogen atom; and

X is a negative counter ion, oxygen, sulfur or $-\text{NH}$; and

(ii) mixing the conjugate to a natural or synthetic biological molecule, wherein the molecule has at least one carbonyl moiety, for a time and under conditions such that the hydrazine moiety of the conjugate reacts with the carbonyl moiety of the molecule forming a hydrazone bond to the molecule.

49. (Amended) The compound of claim 5, wherein B is an amino reactive moiety selected from succinimidyl ester, hydroxybenzotriazolyl ester, or pentafluorophenol ester.

50. (Amended) The compound of claim 8, wherein B is an amino reactive moiety selected from succinimidyl ester, hydroxybenzotriazolyl ester, or pentafluorophenol ester.

51. (Amended) The compound of claim 10, wherein B is an amino reactive moiety selected from succinimidyl ester, hydroxybenzotriazolyl ester, or pentafluorophenol ester.